CLAIMS

1. A method for generating recognition models, the method comprising:

receiving a first model based on a first set of training data, the first set of training data originating from a first set of common entities;

receiving a second model based on a second set of training data, the second set of training data originating from a second set of common entities;

determining a difference in model information between the first model and the second model; and

creating an independent model based on the first set of training data and the second set of training data if the difference in model information is insignificant.

2. The method of claim 1, wherein whether the model information is insignificant is based on a threshold model quantity.

3. The method of claim 1, wherein determining the difference in model information includes calculating a Kullback Leibler distance between the first model and second model.

4. The method of claim 3, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

5. The method of claim 1, wherein the first, second, and independent models are Gaussian mixture models.

6. A system for generating recognition models, the method comprising:

a first model based on a first set of training data, the first set of training data originating from a first set of common entities;

a second model based on a second set of training data, the second set of training data originating from a second set of common entities; and

a processing module configured to create an independent model based on the first set of training data and the second set of training data if the difference in model information between first model and the second model is insignificant.

7. The system of claim 6, wherein whether the model information is insignificant is based on a threshold model quantity.

8. The system of claim 6, wherein the processing model is further configured to calculate a Kullback Leibler distance between the first model and second model.

9. The system of claim 8, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

10. The method of claim 6, wherein the first, second, and independent models are Gaussian mixture models.

11. A computer program product embodied in a tangible media comprising:

computer readable program codes coupled to the tangible media for generating recognition models, the computer readable program codes configured to cause the program to:

receive a first model based on a first set of training data, the first set of training data originating from a first set of common entities;

receive a second model based on a second set of training data, the second set of training data originating from a second set of common entities;

determine a difference in model information between the first model and the second model; and

create an independent model based on the first set of training data and the second set of training data if the difference in model information is insignificant.

12. The computer program product of claim 11, wherein whether the model information is insignificant is based on a threshold model quantity.

13. The computer program product of claim 11, wherein determining the difference in model information includes calculating a Kullback Leibler distance between the first model and second model.

14. The computer program product of claim 13, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

15. The computer program product of claim 11, wherein the first, second, and independent models are Gaussian mixture models.

16. A system for generating recognition models, the method comprising:

a first model based on a first set of training data, the first set of training data originating from a first set of common entities;

a second model based on a second set of training data, the second set of training data originating from a second set of common entities; and

means for creating an independent model based on the first set of training data and the second set of training data if the difference in model information between first model and the second model is insignificant.

17. A method for recognizing data from a data stream originating from one of a plurality of data classes, the method comprising:

receiving a current feature vector;

computing a current vector probability that the current feature vector belongs to one of the plurality of data classes;

computing an accumulated confidence level that the data stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

weighing class models based on the accumulated confidence; and

recognizing the current feature vector based on the weighted class models.

18. The method of claim 17, wherein computing the current vector probability includes estimating an a posteriori class probability for the current feature vector.

19. The method of claim 17, wherein computing the accumulated confidence level further comprising weighing the current vector probability more than the previous vector probabilities.

20. The method of claim 17, further comprising determining if another feature vector is available for analysis.

21. A system for recognizing data from a data stream originating from one of a plurality of data classes, the system comprising:

a receiving module configured to receive a current feature vector;

a first computing module configured to compute a current vector probability that the current feature vector belongs to one of the plurality of data classes;

a second computing module configured to compute an accumulated confidence level that the data stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

a weighing module configured to weigh class models based on the accumulated confidence; and

a recognizing module configured to recognize the current feature vector based on the weighted class models.

22. The system of claim 21, wherein the first computing module is further configured to estimate an a posteriori class probability for the current feature vector.

23. The system of claim 21, wherein the second computing module is further configured to weigh the current vector probability more than the previous vector probabilities.

24. A computer program product embodied in a tangible media comprising:

computer readable program codes coupled to the tangible media for recognizing data from a data stream originating from one of a plurality of data classes, the computer readable program codes configured to cause the program to:

receive a current feature vector;

compute a current vector probability that the current feature vector belongs to one of the plurality of data classes;

compute an accumulated confidence level that the data stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

weigh class models based on the accumulated confidence; and

recognize the current feature vector based on the weighted class models.

25. The computer program product of claim 24, wherein the program code configured to compute the current vector probability includes program code configured to determine an a posteriori class probability for the current feature vector.

26. The computer program product of claim 24, wherein the program code configured to compute the accumulated confidence level includes program code configured to weigh the current vector probability more than the previous vector probabilities.

27. The computer program product of claim 24, further comprising program code configured to determine if another feature vector is available for analysis.